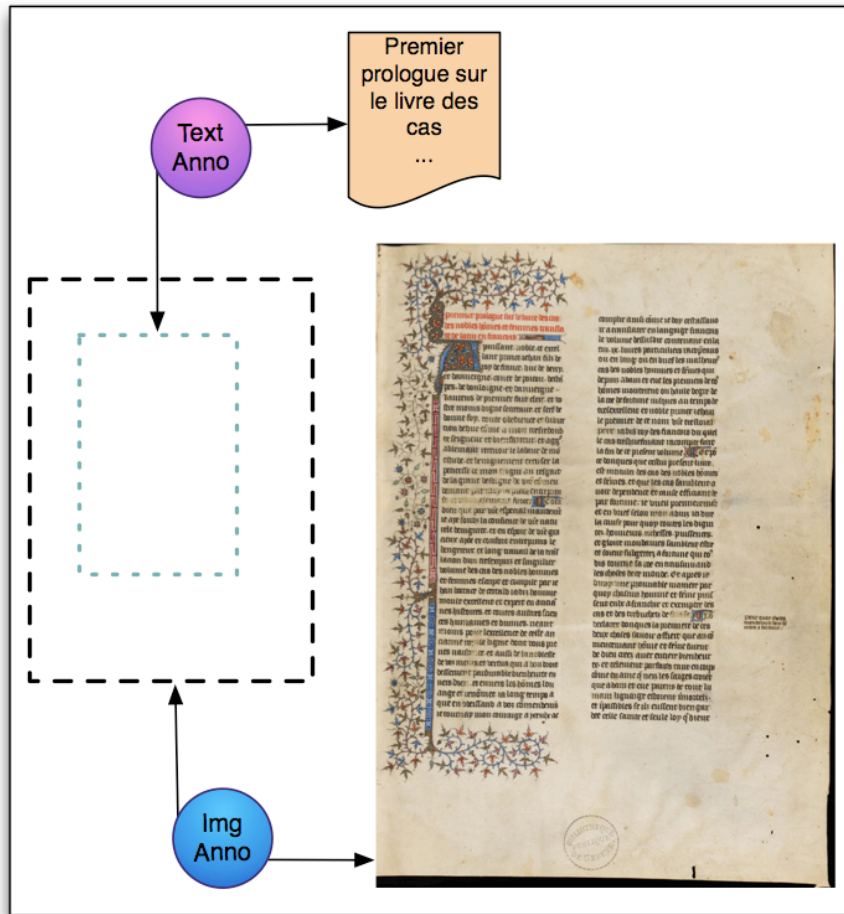


SharedCanvas: Collaborative Facsimiles

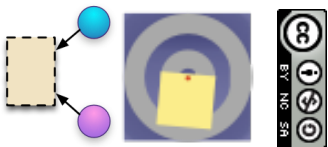


Robert Sanderson
rsanderson@lanl.gov
Los Alamos National Laboratory

Benjamin Albritton
blalbrit@stanford.edu
Stanford University

<http://www.shared-canvas.org/>

This presentation arises from work funded, in part, by the Andrew W. Mellon Foundation

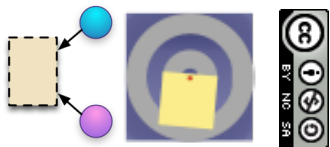


SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Overview

- Motivation
- SharedCanvas Model
- Examples
- Distributed Approach



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Motivation

Many repositories of digitized books, manuscripts and other culturally important objects.

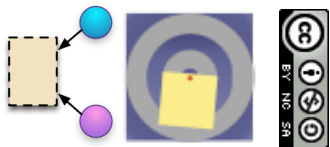
Just as many home-grown page turning websites, apps and programs.

Just as many models and descriptive formats.

Medieval manuscripts are often held at multiple locations, only exist in fragments, may be only partially digitized, ...



Ms MurF: 10.5076/e-codices-kba-0003



Vision

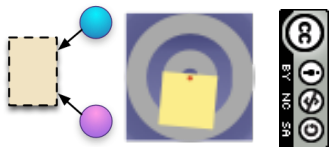
A collaborative future:

- Rich landscape of interconnected repositories of images, texts, media
- Seamless user interfaces disconnected from those repositories
- Improved efficiency and usability through open, shared development

Requirements:

- Shared Data Model
- Shared services

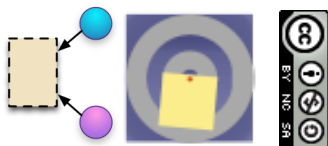
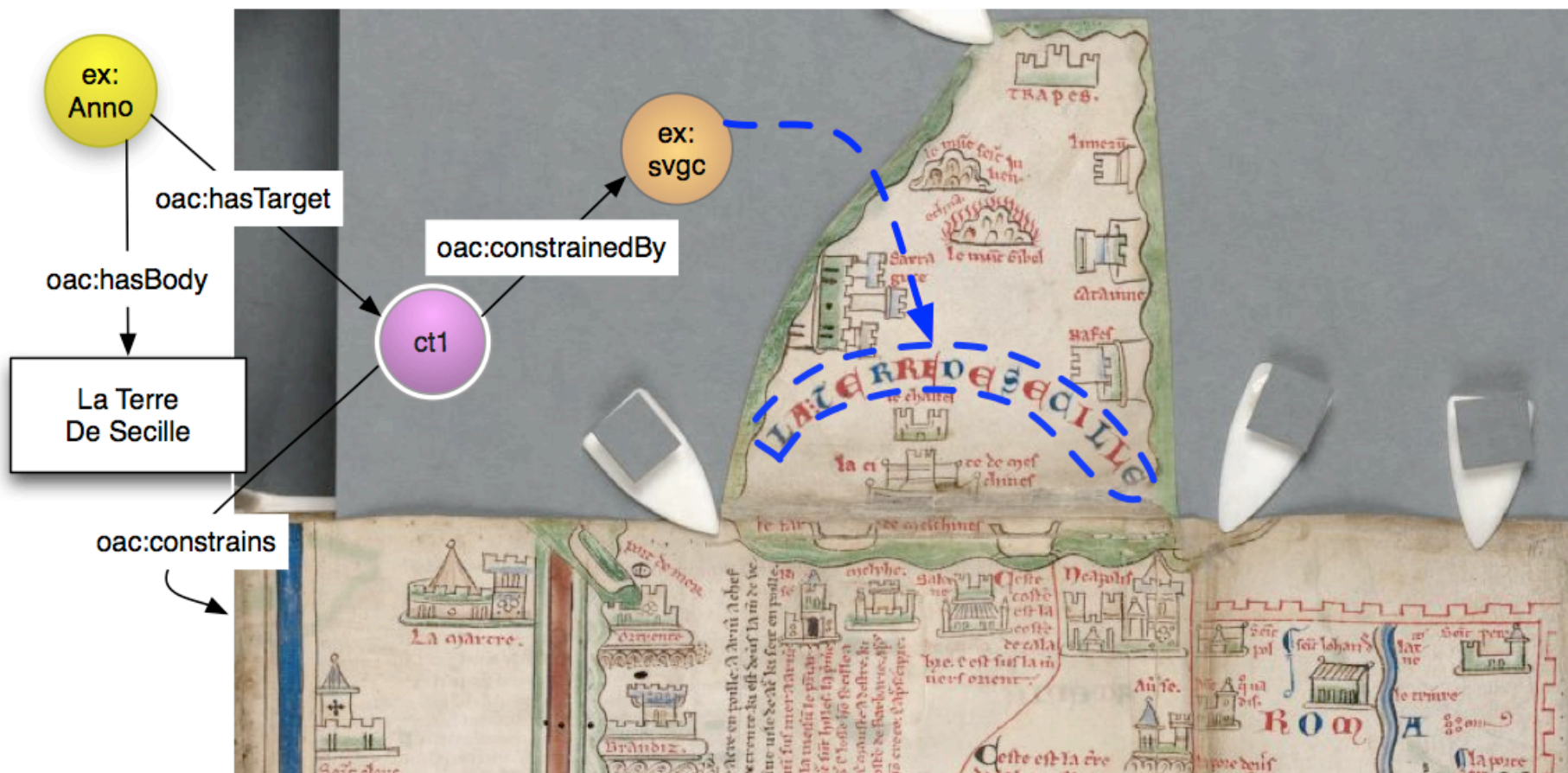
BNF f.fr 113, folio 1 recto



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



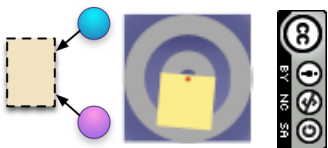
Naïve Approach: Transcribe Images Directly



Naïve Approach: Multiple Representations?



CCC 26 f. iiiR



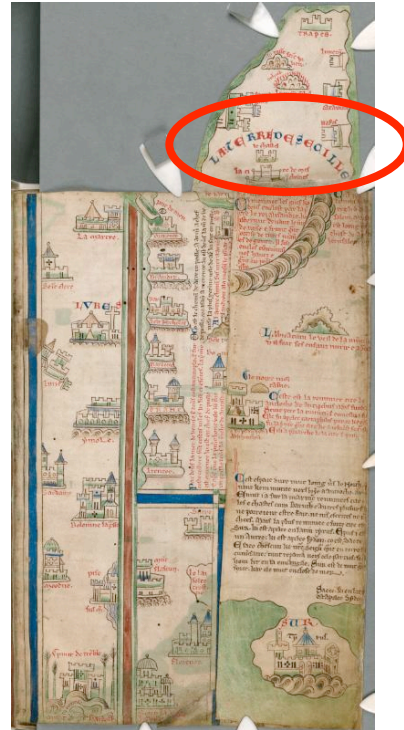
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



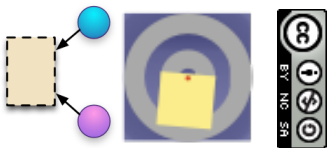
Naïve Approach: Multiple Representations?



CCC 26 f. iiiR



Fold A Open



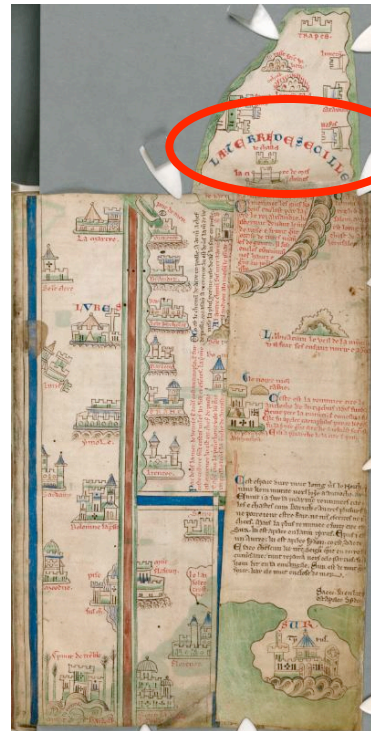
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Naïve Approach: Multiple Representations?



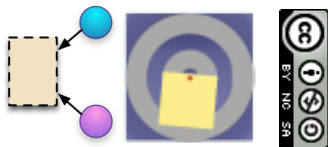
CCC 26 f. iiiR



Fold A Open



Fold A and B Open



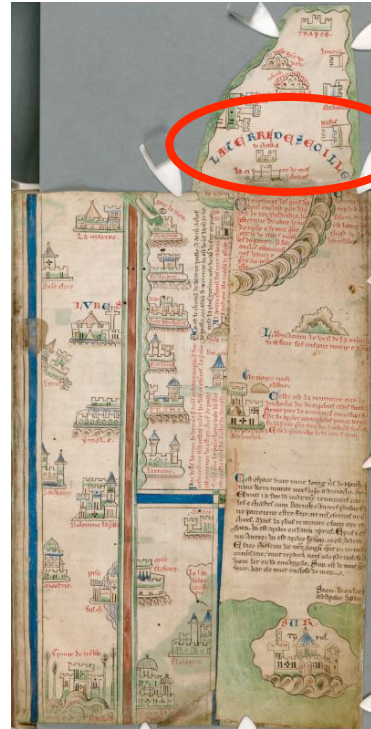
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



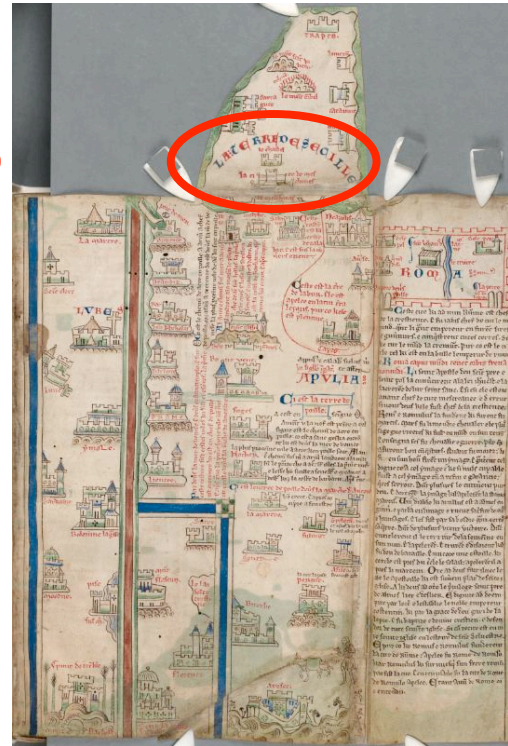
Naïve Approach: Multiple Representations?



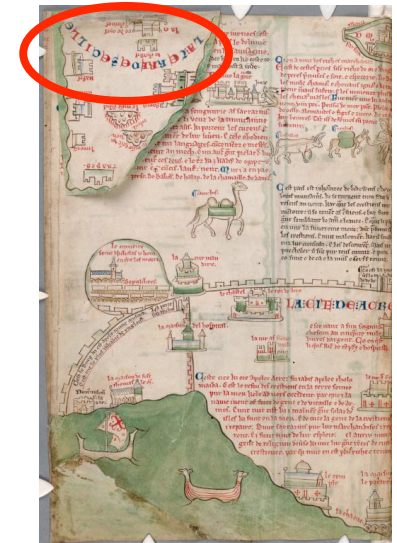
CCC 26 f. iiiR



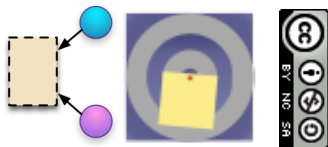
Fold A Open



Fold A and B Open



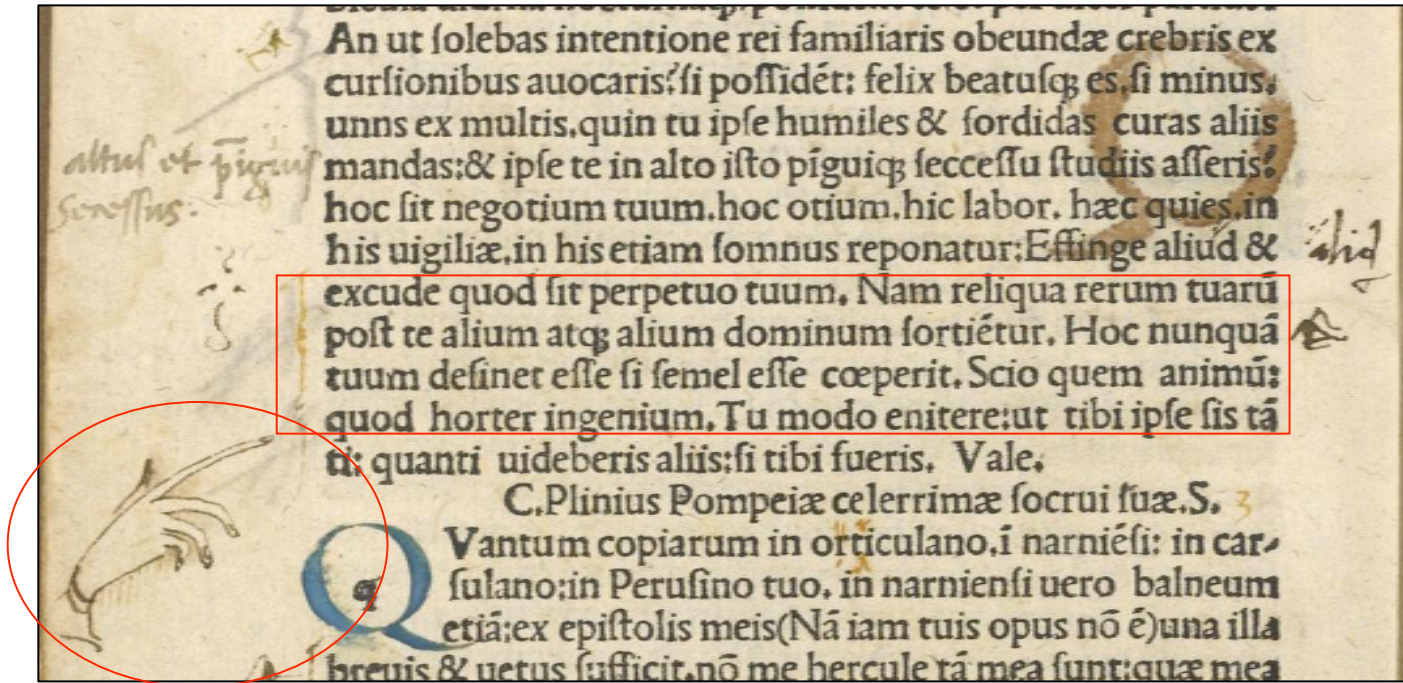
f. iiiV



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco

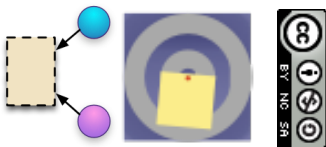
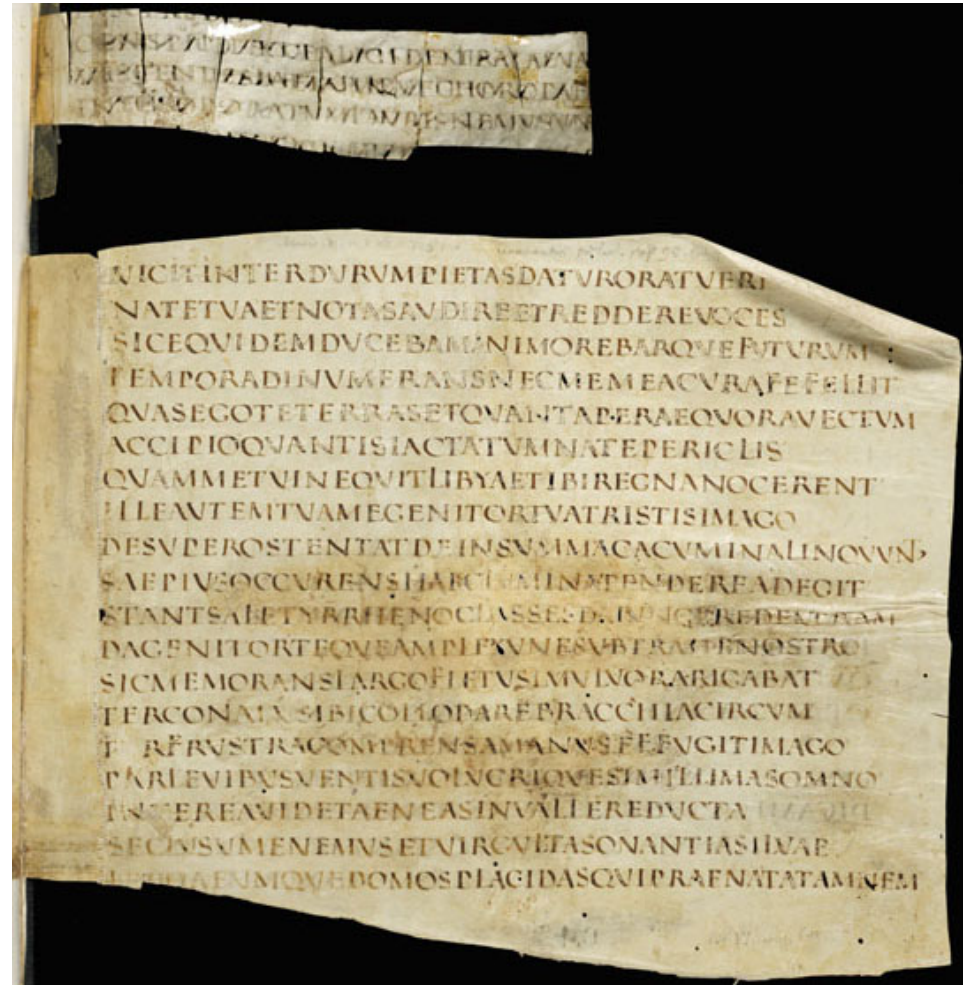


Naïve Approach: Marginalia as Annotations?



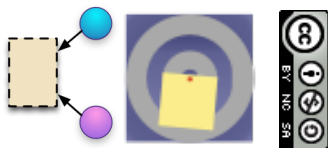
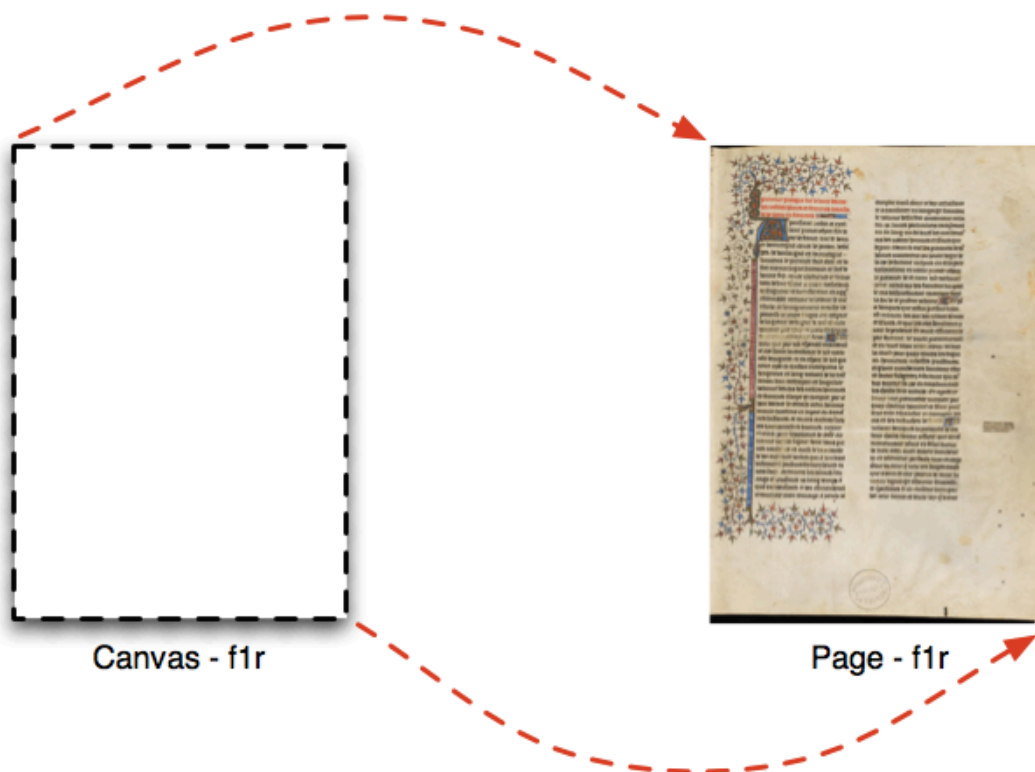
Naïve Approach: Fragmentary/Missing Pages?

This page intentionally,
but unfortunately,
left blank



Canvas Paradigm

- A Canvas is an empty space in which to build up a display
- A SharedCanvas's top left and bottom right corners correspond to the equivalent corners of a page



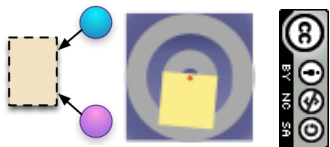
Painting the Canvas?

Requirements:

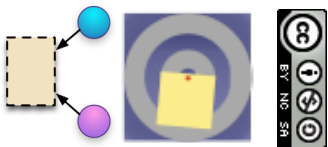
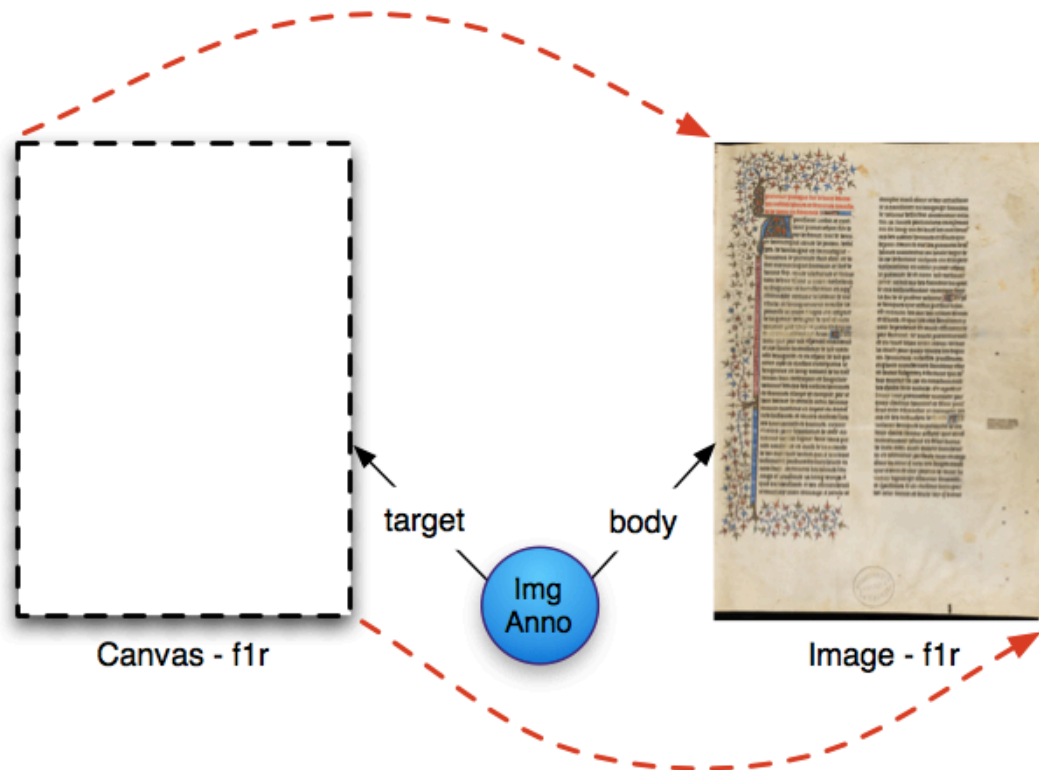
- Need to allow distributed association of resources with the Canvas, or part of the Canvas
- Any type of resource, or part of a resource, should be able to be painted
- Need to allow users to comment about the Canvas, or part of it, or any of the resources

Solution:

- Associate resources using Annotations

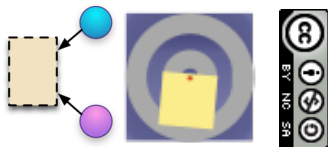
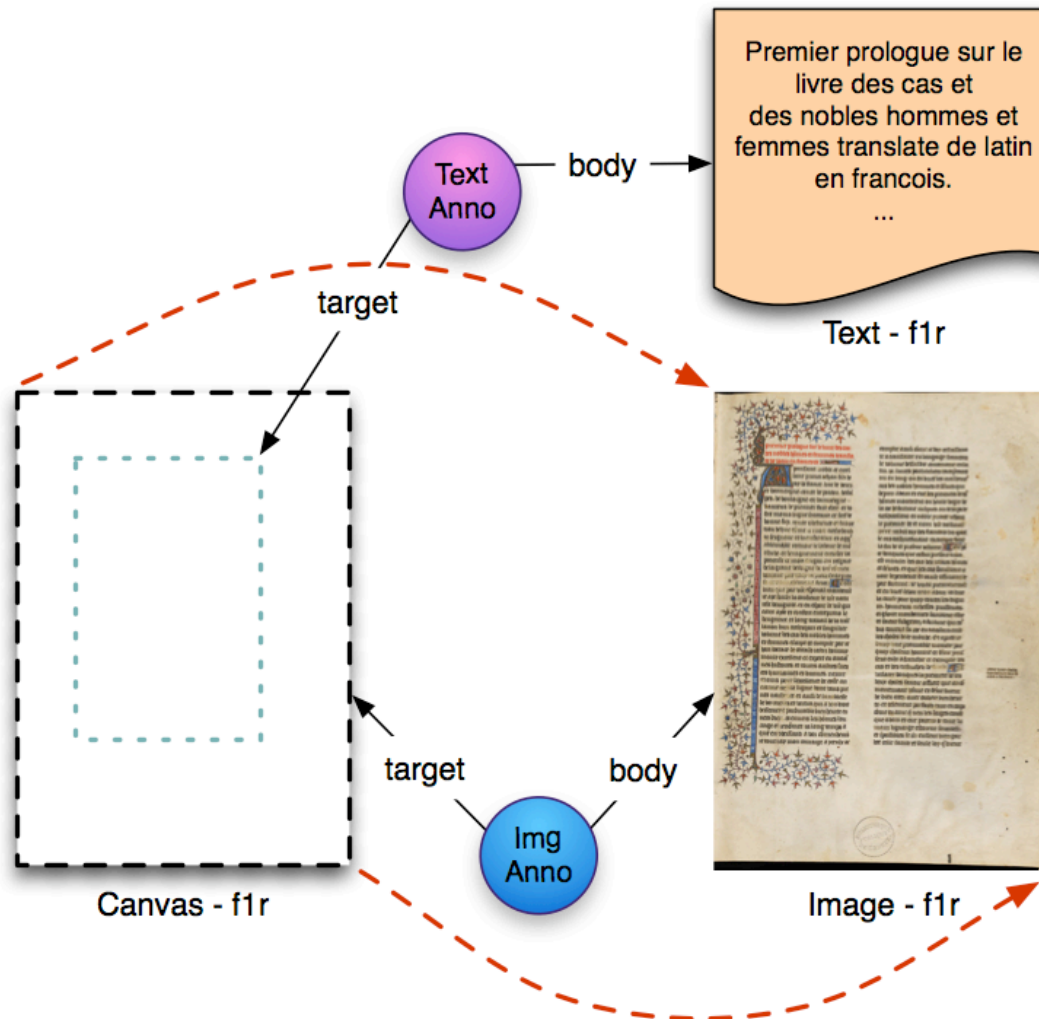


Annotations to Paint Images



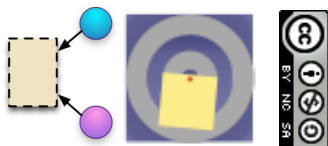
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco

Annotations to Paint Text



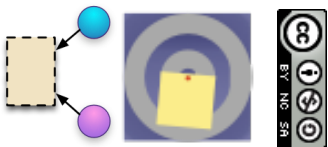
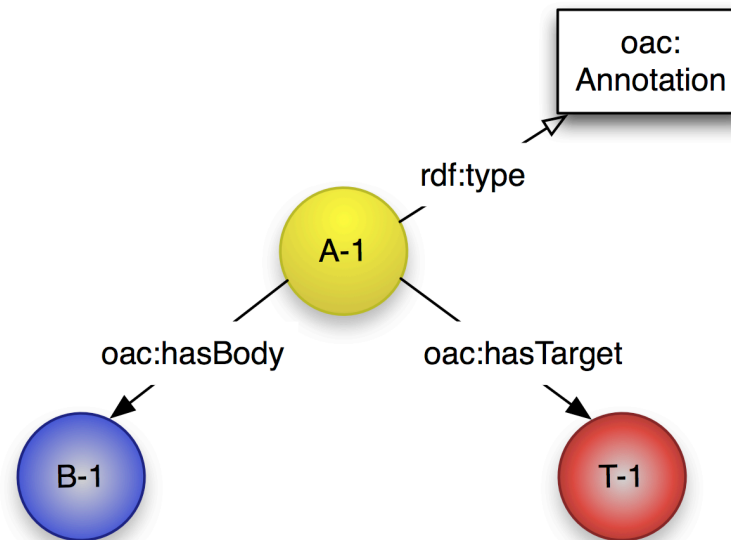
Open Annotation

- <http://www.openannotation.org/>
- Focus on interoperable sharing of annotations
 - The framework for NISO/IA Social Bookmarking effort
 - Asked by W3C to engage, updating Annotea
 - Top down model, with bottom up code and experience
- “Annotation”
 - Scholarly commentary about the manuscript
 - Painting resources on the SharedCanvas

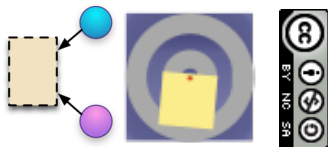
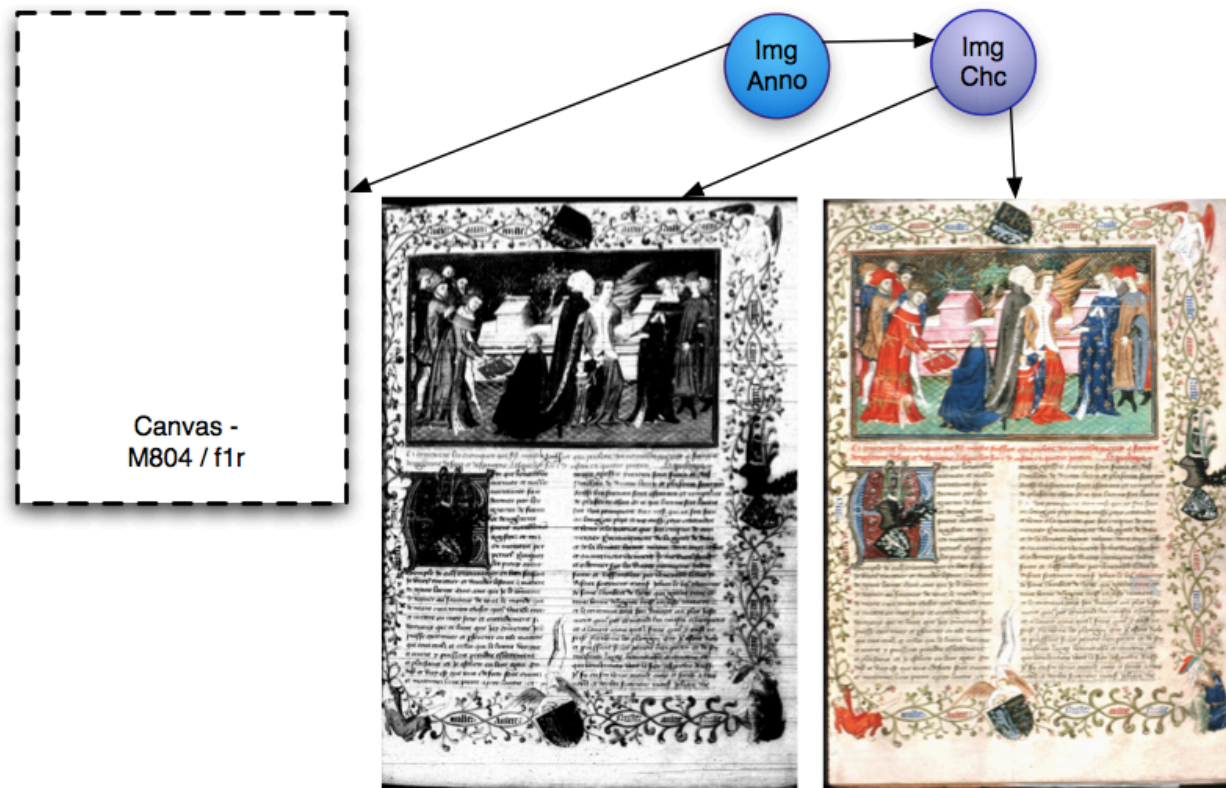


Base Open Annotation Model

- Annotation (a document)
- Body (the 'comment' of the annotation)
- Target (the resource the Body is 'about')



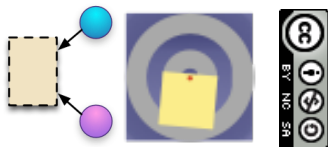
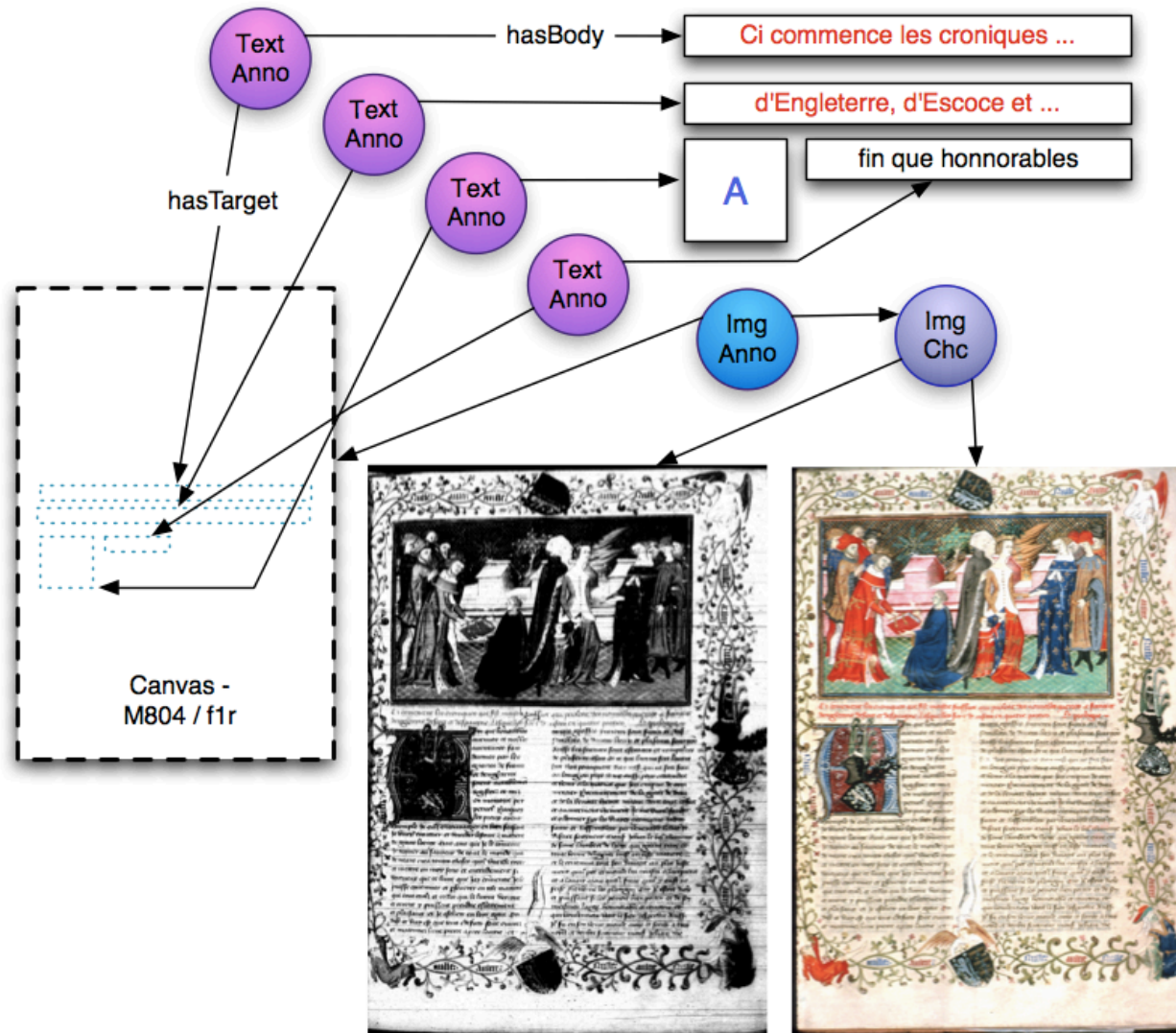
Transcription: Morgan 804



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Transcription: Morgan 804



Proof of Concept Implementation

Display Window Annotate M804 f1r Jump next →

Images [-]

M804 f1r:

Color ☒

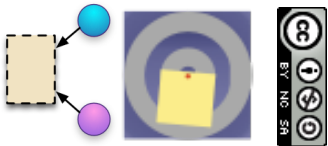
Black & White ☐

Comments [-]

- King of England (part of M804 f1r)
This is the King of England, obvious from the Lions on his robes.
- + Queen Isabel
- + Froissart



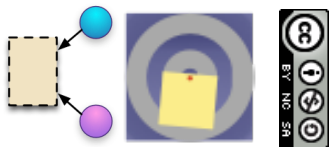
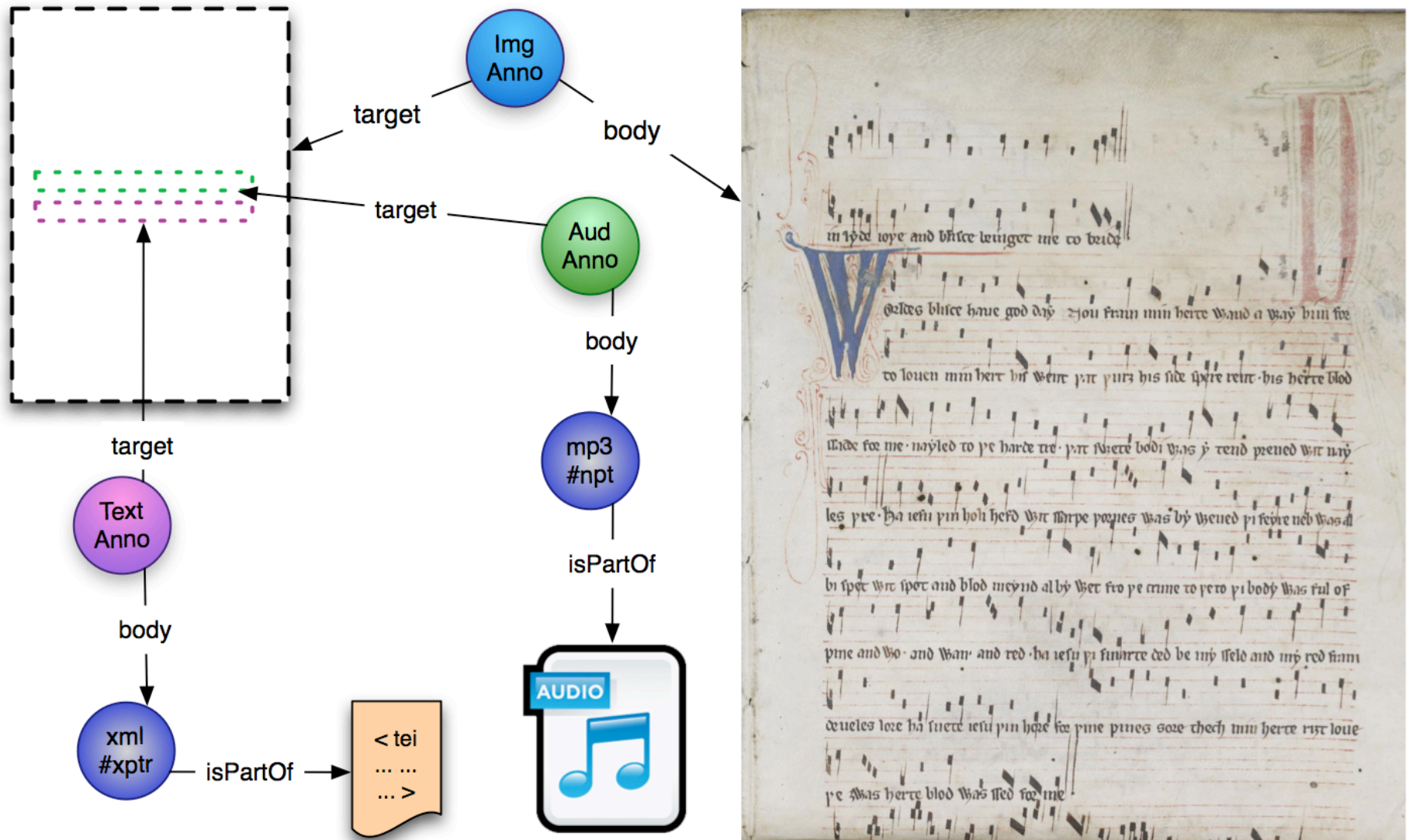
Ci commencent les croniques que fist maistre Frossart qui parlent des nouvelles guerres de France et d'Engleterre, d'Escoce et d'Espagne, lesquelles sont devisees en quatre parties. Le prologue.



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



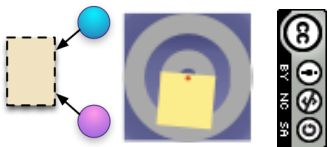
Musical Manuscripts: Parker CCC 008



Proof of Concept Implementation

Worldes Blisce [Jump](#)

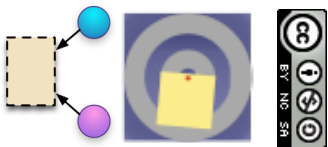
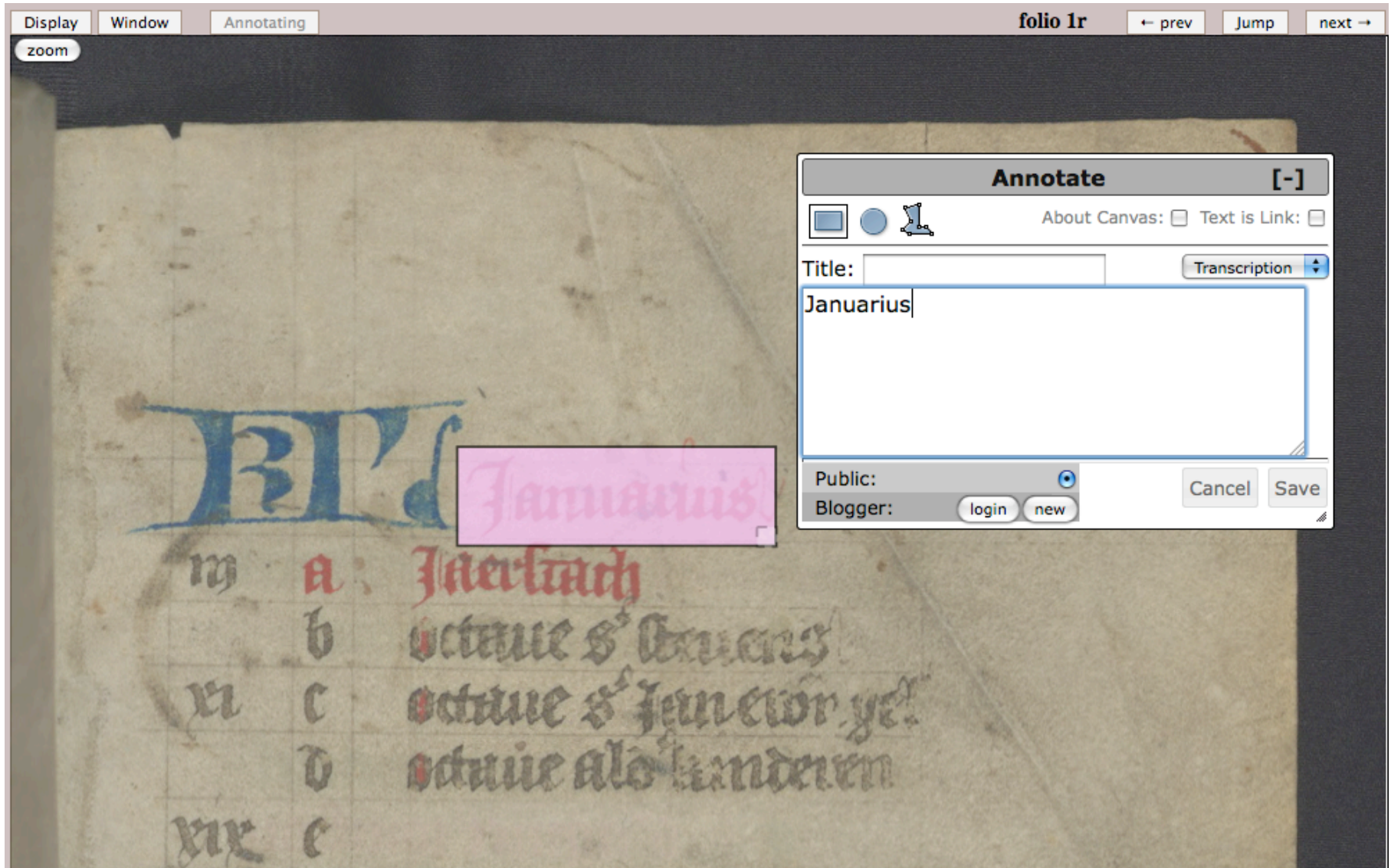
Worldes-blisce, haue god-day! Nou fram min herte wand away; him for to louen min hert his went, bat purȝ his side spere rent, his herte blod ssadde for me, nayled to þe harde tre, bat swete bodi was y-tend, prened wit nay les þre. Ha iesu! þin holi helf wit ssarpe þornes was by-weued, þi feyre neb was al bi-spēt, wit spot and blod meynd al by-wet; fro þe crune to þe to þi body was ful of pine and wo, and wan and red. ha iesu! þi smerte ded be my sseld and my red fram deueles lore. ha, suete iesu, þin hore! for þine pines sore, thech min herte riȝt loue þe was herte blod was ssed for me.



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



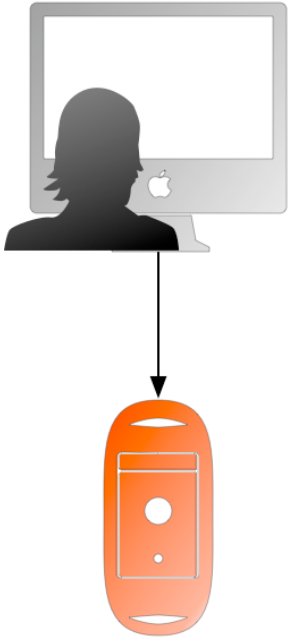
Where are Annotations Stored?



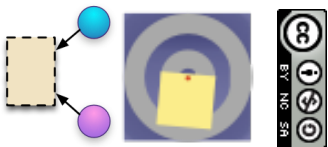
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Publish/Subscribe Method: Publish



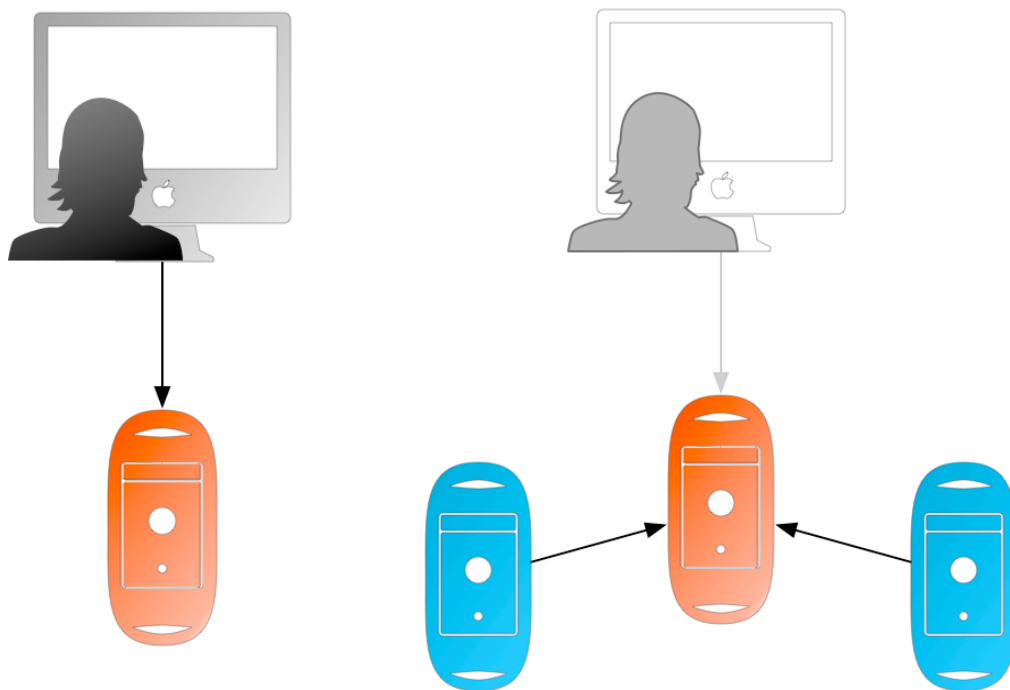
publish →



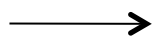
SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



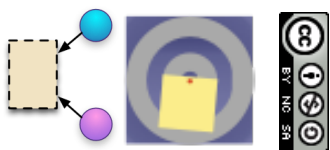
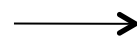
Publish/Subscribe Method: Subscribe



publish



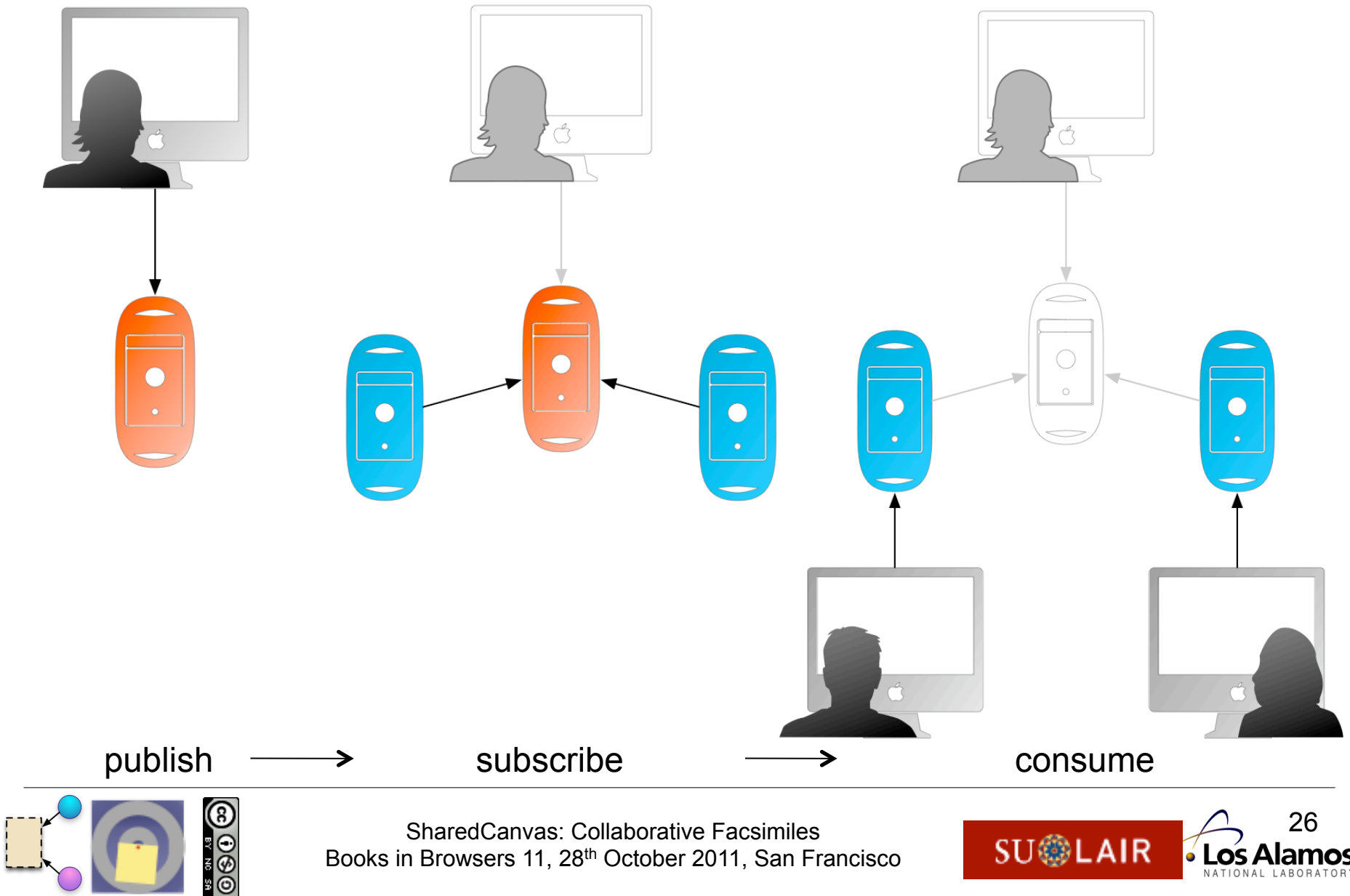
subscribe



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Publish/Subscribe Method: Consume



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



Summary

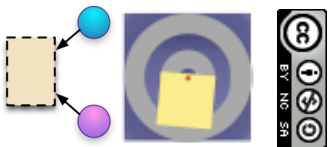
Model:

- Canvas paradigm provides a coherent solution to modeling the layout of medieval manuscripts
- ... or any other, collaboratively created resource?

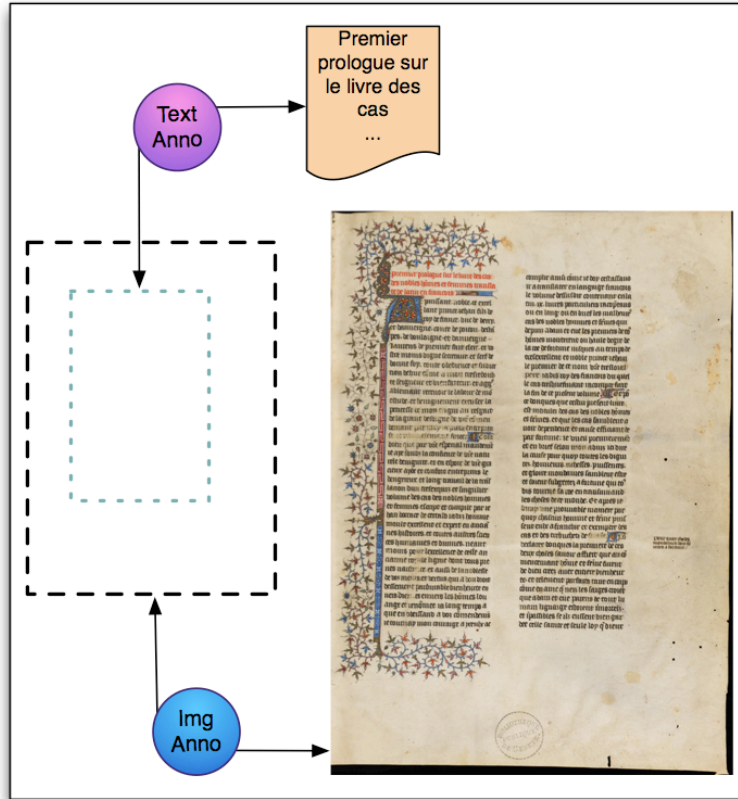
Implementation:

- Distribution across repositories for all resources
- PubSub enables customized views and avoids tool lock-in
- Encourages tool development by experts

SharedCanvas brings digitized works to the desktop
in a powerful, extensible and interoperable fashion



Thank You



Robert Sanderson

rsanderson@lanl.gov

azaro42@gmail.com

[@azaro42](https://github.com/azaro42)

Benjamin Albritton

blalbrit@stanford.edu

[@bla222](https://github.com/bla222)

Web:

<http://www.shared-canvas.org/>

Paper:

<http://arxiv.org/abs/1104.2925>

<http://arxiv.org/abs/1110.3687>

Slides:

<http://slidesha.re/rRstTO>

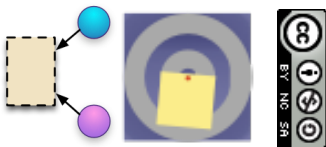
Acknowledgements

DMSTech Group:

<http://lib.stanford.edu/dmm>

Open Annotation Collaboration:

<http://www.openannotation.org/>



SharedCanvas: Collaborative Facsimiles
Books in Browsers 11, 28th October 2011, San Francisco



28